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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,131	12/05/2003	Eugenio Bortone	CFLAY.00222	8987
22858	7590	02/13/2006	EXAMINER	
CARSTENS & CAHOON, LLP			EASHOO, MARK	
P O BOX 802334			ART UNIT	
DALLAS, TX 75380			PAPER NUMBER	
			1732	
DATE MAILED: 02/13/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/729,131

Applicant(s)

BORTONE, EUGENIO

Examiner

Mark Eashoo, Ph.D.

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,7-11,13 and 16 is/are rejected.
- 7) ☒ Claim(s) 3,5,6,12,14 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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## DETAILED ACTION

*Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.*

### *Claim Rejections - 35 USC § 102 & 103*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4, 8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hentschel (US Pat. 5,266,260).

Regarding claims 1 and 4: Hentschel '260 teaches the claimed extrusion process comprising a step of: applying a resistance or hindering force opposite to the direction of extrusion (eg. friction) to an extrudate downstream of the point wherein the extrudate wherein the extrudate is at a temperature that allows plastic deformation and sagging (1:45-50) in a containment vessel (1:35-2:10; 4:55-65; 5:5-50; and Fig. 1); and forming the extrudate into a coil (Figs. 1 and 3).

It is inherent that the extrudate is cooled to a point wherein the extrudate exhibits a temperature in its glass transition region/stage in order to form the desired shape of the extrudate, such that space exists between deposited portions of an extruded billet but is yet deformable (5:15-30), otherwise that extrudate would tend to flow under its own weight in the containment vessel and thereby under the influence of gravity would fill the mold space like a liquid. Nonetheless, if the extrudate is not cooled to a point wherein the extrudate exhibits a temperature in its glass transition region/stage then a person of ordinary skill in the art would have found it obvious to have done so in order to keep the helical shape of the billet in the containment vessel, until further molding pressure is applied, and would have been motivated to do so to keep the fibers aligned in a helical manner thereby maintaining molecular and fiber orientation and mechanical strength.

Regarding claims 2 and 8: Hentschel '260 also teaches that: a tubular containment device which is generally axially aligned to the extrudate (Fig. 1).

Claims 9-11, 13, 16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hentschel (US Pat. 5,266,260).

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Regarding claims 9-10, 13: Hentschel '260 teaches the claimed extrusion process comprising a step of: applying a resistance or hindering force opposite to the direction of extrusion (eg. friction) to an extrudate downstream of the point wherein the extrudate wherein the extrudate is at a temperature that allows plastic deformation and sagging (1:45-50) in a containment vessel (1:35-2:10; 4:55-65; 5:5-50; and Fig. 1); and forming the extrudate into a coil (Figs. 1 and 3).

It is inherent that the extrudate is cooled to a point wherein the extrudate exhibits a temperature in its glass transition region/stage in order to form the desired shape of the extrudate, such that space exists between deposited portions of an extruded billet but is yet deformable (5:15-30), otherwise that extrudate would tend to flow under its own weight in the containment vessel and thereby under the influence of gravity would fill the mold space like a liquid. Nonetheless, if the extrudate is not cooled to a point wherein the extrudate exhibits a temperature in its glass transition region/stage then a person of ordinary skill in the art would have found it obvious to have done so in order to keep the helical shape of the billet in the containment vessel, until further molding pressure is applied, and would have been motivated to do so to keep the fibers aligned in a helical manner thereby maintaining fiber orientation and mechanical strength (1:30-35).

Regarding claims 11 and 16: Hentschel '260 also teaches that: a tubular containment device which is generally axially aligned to the extrudate (Fig. 1).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hentschel (US Pat. 5,266,260).

Regarding claim 7: Hentschel '260 teaches the claimed extrusion process comprising a step of: applying a resistance or hindering force opposite to the direction of extrusion (eg. friction) to an extrudate downstream of the point wherein the extrudate wherein the extrudate is at a temperature that allows plastic deformation and sagging (1:45-50) in a containment vessel (1:35-2:10; 4:55-65; 5:5-50; and Fig. 1); forming the extrudate into a coil (Figs. 1 and 3); and a series of peripheral containment vessels (Fig. 1).

It is intrinsic that the extrudate is cooled to a point wherein the extrudate exhibits a temperature in its glass transition region/stage in order to form the desired shape of the extrudate, such that space exists between deposited portions of an extruded billet but is yet deformable (5:15-30), otherwise that extrudate would tend to flow under its own weight in the containment vessel and thereby under the influence of gravity would fill the mold space like a liquid. Nonetheless, if the extrudate is not cooled to a point wherein the extrudate exhibits a temperature in its glass transition region/stage then a person of ordinary skill in the art would have found it obvious to have done so in order to keep the helical shape of the billet in the containment vessel, until further molding pressure is applied, and would have been motivated to do so to keep the fibers aligned in a helical manner thereby maintaining molecular and fiber orientation and mechanical strength.

Hentschel '260 does not teaches a placing number of extruder dies in series. Nonetheless, Official Notice is given that having an extra die available for an extrusion apparatus is well known in the molding art.

At the time of invention a person of ordinary skill in the art would have found it obvious to have placed a number of extruder dies in series (eg. one in use and one spare), as commonly practiced in the art, in the process of Hentschel '260, and would have been motivated to do so in order to reduce operational downtime when cleaning or maintenance is required on the extrusion die.

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***Allowable Subject Matter***

Claims 3 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The reasons for allowance are substantially the same as those presented in parent application Ser. No. 10/271,118, now US Pat. 6,770,233.

Claims 5 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach or render obvious the process, wherein a pressurized gas is introduced into a containment device such that the resistance caused by the gas causes an extrudate to coil within the containment device.

Claims 6 and 15 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach or render obvious the process, wherein a vacuum is created in a containment device such that the resistance caused by the vacuum causes an extrudate to coil within the containment device.

***Response to Arguments***

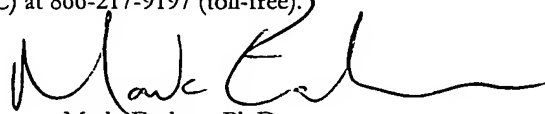
Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Eashoo, Ph.D. whose telephone number is (571) 272-1197. The examiner can normally be reached on 7am-3pm EST, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianini can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark Eashoo, Ph.D.  
Primary Examiner

2/7/06